

Serial No. 10/743,778

Docket No. K-0597

Amendment dated January 31, 2007

Reply to Office Action of September 1, 2006

### REMARKS/ARGUMENTS

Claims 1-10 are pending in this application. By this Amendment, claims 1-10 are amended.

The Office Action objects to claims 1, 2, 4, 6 and 8 for informalities. By this Amendment, claims 1, 2, 4, 6 and 8 have been amended in accordance with the Examiner's suggestions. Hence, withdrawal of these objections is respectfully requested.

The Office Action rejects claims 1-9 under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter of the present invention. Claims 1 and 3 are revised to clarify that the recited compounds are for A1 and A2, and for B1 and B2, and there is no uncertainty regarding the formulas with these changes. It is submitted that since each of A1 and A2 and B1 and B2 are defined in their respective independent claims, the language found in the dependent claims, e.g., language further limiting these compounds using the phrase "at least one of" these compounds is not indefinite. Since the independent claims each recite the makeup of compounds A1, A2, B1, and B2, further limiting of B1 and B2 as is done in claim 4 is not per se indefinite. Accordingly, the rejection under 35 U.S.C. § 112, second paragraph of claim 4 should be withdrawn. The remaining rejections under this statutory section have been overcome by the revisions to the claims and the rejections against all of the claims should now be withdrawn.

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The Office Action rejects claims 1, 2 and 6-10 under 35 U.S.C. §102(b) over U.S. Patent No. 5,153,073 issued to Ohnuma et al. (hereinafter "Ohnuma").

The Office Action also rejects claims 3-5 under 35 U.S.C. §103(a) over U.S. Patent No. 5,935,721 issued to Shi et al. (hereinafter "Shi") in view of Ohnuma.

Applicants respectfully traverse the rejections of the claims and the traversal is set out below under the applied prior art.

#### Ohnuma

In the rejection, the Examiner contends that Ohnuma anticipates claim 1 on the grounds that the organic compound of the general formula (I) reads on the blue emitting material having the claimed chemical formula 1 as a dopant.

This conclusion of anticipation is tainted since the Examiner has not fully addressed the limitations of claim 1. Claim 1 now recites a blue organic electroluminescent device that includes an emitting layer formed between the first and second electrode, with the emitting layer having a plurality of materials, and comprising a blue emitting material using a chemical formula 1 as a dopant.

The compound of general formula (I) of Ohnuma is placed between the electrodes as part of Ohnuma's electroluminescent device and it is a substituted or unsubstituted pyrenal group. However, Ohnuma does not disclose the specific compound of chemical formula 1 as a dopant in a blue emitting material. It should again be noted that claim 1 has been revised to

clarify that the organic electroluminescent device is as blue one that includes a blue emitting material.

While Ohnuma does disclose that the device can provide luminescence of various colors such as green, blue green, blue and purple blue, see col. 12, lines 59-66, there is no disclosure of the claimed chemical formula 1 as a blue emitting material dopant in a blue organic luminescent device. While Ohnuma may disclose organic luminescent device that has a blue luminescent color as shown in Table 1, examples 2, 4, 7 and 8, these examples do not disclose the device of claim 1, wherein the emitting layer has a plurality of material and comprises a blue emitting material using chemical formula 1 as a dopant. Therefore, Ohnuma cannot be said to anticipate claim 1.

Lacking a basis to reject claim 1 under 35 U.S.C. § 102(b), the Examiner is left with relying on 35 U.S.C. § 103(a) to continue to reject this claim. However, in order to reject claim 1 based on a reference which does not teach all of the features of the claim, the Examiner can only formulate a rejection under 35 U.S.C. § 103(a) if there is some reason to modify Ohnuma so as to arrive at the invention. Ohnuma provides no suggestion for a modification that would result in the device of claim 1, and there is no basis to make a rejection under 35 U.S.C. § 103(a). Any contention that Ohnuma establishes a *prima facie* case of obviousness is tantamount to the hindsight reconstruction of the prior art using Applicants' specification as a teaching template.

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Such a rejection, if made, could not be sustained on appeal. Therefore, the rejection of claim 1 and its dependent claims 2, and 6-10 must be withdrawn.

If the Examiner should maintain the rejection based on Ohnuma, a full explanation is requested supporting any further contention that the device of claim 1 is found or suggested by Ohnuma.

Shi in view of Ohnuma

In rejecting claims 3-5, the Examiner must address the combination of a host material and a dopant. Implicitly admitting that Ohnuma does not teach the combination, the Examiner turns to Shi to allege that it is known to use host materials with dopants and contends that the host materials of Shi read on that which is claimed. The Examiner admits that Shi does not disclose the chemical formula 1 as a dopant to combine with the host material of Shi. To address this deficiency, the Examiner first characterizes the compound of general formula (I) of Ohnuma as a conjugated benzenoid. The Examiner then concludes that it would be obvious to select suitable dopants from known fluorescent material, and that it would be obvious to use the benzenoid of Ohnuma as a dopant in the device of Shi.

It is submitted that the rejection is conclusory and the Examiner has not supplied the proper reasoning to draw the conclusion of obviousness. Applicants do not dispute that Ohnuma may teach a conjugated benzenoid. However, there is no disclosure in Ohnuma that

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the conjugated benzenoid could be used as a blue emitting organic luminescent dopant in combination with a host material. The Examiner does not have such a teaching within the four corners of Ohnuma. At best, the Examiner is drawing a conclusion that it would be obvious to employ the material of Ohnuma as a dopant with the host material of Shi without a factual basis to do so. The rejection only identifies Ohnuma as teaching a conjugated benzenoid, not that this material is apt for use as a dopant with a host material as is set forth in claim 3.

As argued above, Ohnuma teaches that the compound of general formula I is the light emitting material and Ohnuma does not teach it as a dopant for use with a host material.

Lacking a basis to draw the conclusion of obviousness, the Examiner cannot allege that Shi and Ohnuma establish a *prima facie* case of obviousness against claims 3-5, and the rejection as applied thereagainst must be withdrawn.

### CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited.

If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, **Daniel Y.J. Kim**, at the telephone number listed below.

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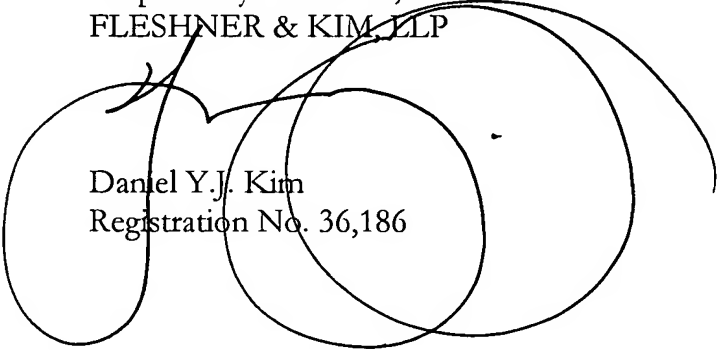
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To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,  
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**Date: January 31, 2007**

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